NEW HAMPSHIRE DEPARTMENT OF Environmental Services

Nonpoint Source Management Annual Report

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Nonpoint Source Management Annual Report

2001

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Cover Photo: Mount Chocorua looms over Chocorua Lake, with a newly installed stormwater BMP shown on the right. The rock-lined ditch filters pollutants from stormwater running off of heavily traveled Route 16.

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Introduction

The purpose of this report is to give the reader an overview of activities funded under the Clean Water Act Section 319 program and other activities within the New Hampshire Department of Environmental Services (DES) that address nonpoint source (NPS) pollution. Specifically, the report addresses how program activities relate to water quality goals as expressed in the 1999 *New Hampshire Nonpoint Source Management Plan,* and how program activities in 2001 fit into the long-term direction of the program. The report covers activities that occurred during federal fiscal year 2001, October 1, 2000 through September 30, 2001. During this period, DES continued restoration activities in the coastal watersheds and initiated new restoration efforts in the Merrimack River watershed. In addition, "Smart Growth" efforts have increased in importance as DES looks at long-term planning and growth issues in relation to watershed protection.

DES acknowledges the many outside organizations and individuals that are working toward clean water goals and that are not discussed in this report. It is our hope that DES's programs complement the work of others and our goal to continuously improve our working relationships with our watershed partners.

Watershed Approach

Piscataquog River

Recognizing the need for continuous improvement in our programs to protect and restore watersheds, the Watershed Management Bureau embarked on a strategic planning process in 2001. Goal 6 of the Strategic Plan is to "develop and implement a watershed management approach that involves citizens, local/state/federal governments, and non-government organizations." To this end, a working group made up of DES staff and various stakeholders in watershed management was formed to develop an outline and concept for a watershed approach. A draft is anticipated in 2003, which will be followed by broader stakeholder input.

Overview of the Nonpoint Source Management Plan

The *New Hampshire Nonpoint Source Management Plan* provides the overall framework for Section 319 funded activities over the next five years. The Plan describes goals, objectives, and actions for watershed management, and identifies and ranks 14 specific nonpoint source categories to be managed statewide in order to provide a minimum level of protection necessary to achieve water quality goals. The top five ranked NPS

categories are: 1) stormwater 2) runoff 3) hydromodification 4) subsurface systems, junk, salvage and reclamation yards and 5) construction. In response to the federal Clean Water Action Plan, New Hampshire published a Unified Watershed Assessment in 1998 that identified Category I watersheds in need of watershed restoration. NPS Restoration activities focus on these Category I watersheds. In addition, 319 grants are used to fund pollution prevention and resource protection activities to ensure the preservation of waterbodies throughout New Hampshire.

Coastal Watershed

Coastal watershed work is supported full time by the Coastal Watershed Supervisor and a Nonpoint Source Specialist. Their work includes developing watershed management plans with coastal partners, implementing restoration projects, conducting pollution source investigations, and monitoring. Another NPS Specialist supports coastal activities while also contributing to the work in the Merrimack River watershed. Her contributions to the coast include grant administration, investigations and review of quality assurance project plans for 319 projects. The next two sections summarize the pollution source investigation work and the DES involvement in the New Hampshire Estuaries Project. Watershed Assistance Grants for the Coastal watershed are described later in the document.

Rainbow over Whaleback Light, Portsmouth Harbor

Coastal Nonpoint Source Pollution Investigations

DES began implementing pollution source investigations in the Coastal watershed in 1996. At that time, the top priority water quality issue in the watershed was related to bacterial sources, which were frequently causing the closure of shellfish beds. Efforts during Fiscal Year 2001 focused on two types of investigations for bacteria sources: 1) follow-up work of potential pollution sources identified during DES's Shellfish Program shoreline surveys and 2) continuing illicit discharge investigations of urban storm drainage systems. All work was conducted during dry weather, which was defined as not more than 0.10 inches of rain in the previous 48 hours. When pollution sources were found, DES staff worked with municipalities on remediation. This involved technical and financial assistance, and in some cases, regulatory compliance and enforcement.

These investigations helped locate 10 bacteria sources linked to illicit sewer connections in Portsmouth, Dover, and Somersworth. Eight of these sources were disconnected and

two remained under investigation at the end of the fiscal year. In addition, DES staff assisted municipalities in identifying further sources through smoke and dye testing of storm drains. Two sources and one cross-connection in Portsmouth, five sources in Dover, and two in Rochester were disconnected by the public works departments in each city. By the end of the fiscal year, there were an additional 17 sites with sources of contamination still under investigation. A summary of the 2001 field investigations is provided below.

Figure 2

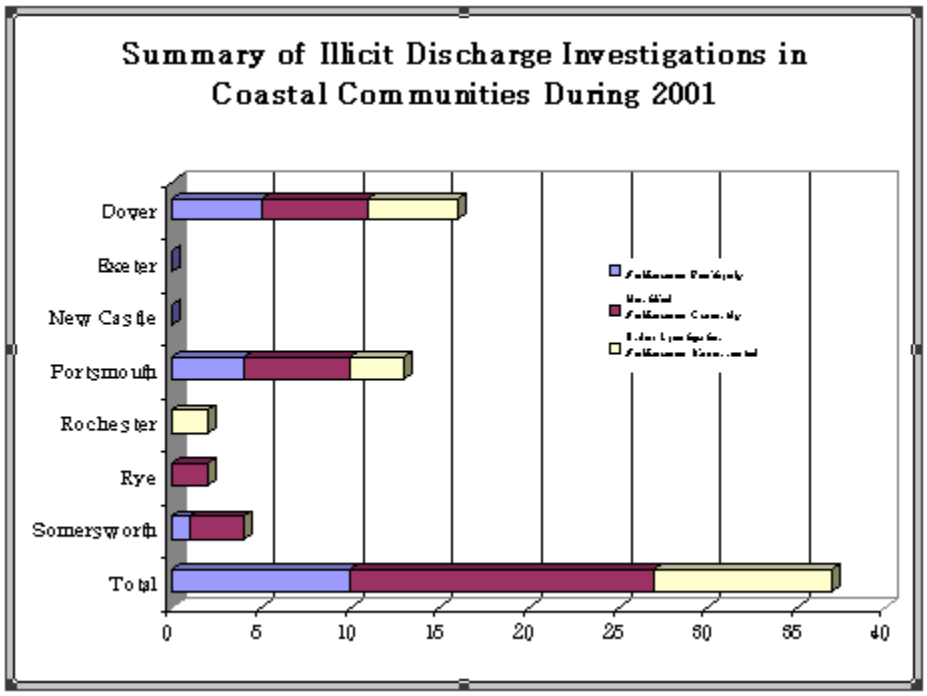


Table 1
Summary of Dry Weather Bacteria Investigations in the Coastal Watershed During FY 2001

Town/City	Samples collected	Samples with *E. coli* > 406 cts/100 mL	Sources identified	Sources under investigation	Previously identified sources disconnected
Dover	79	47	5	6	5
Exeter	4	0	0	0	0
New Castle	4	0	0	0	0
Portsmouth	87	38	4	6	3
Rochester	0	0	0	0	2
Rye	43	2	0	2	0
Somersworth	101	53	1	3	0
TOTAL	318	140	10	17	10

New Hampshire Estuaries Project

The Coastal Watershed Supervisor represents DES on the New Hampshire Estuaries Project (NHEP) Management Committee and the NHEP Water Quality Team. A major function of the supervisor in this role is to develop restoration projects with coastal partners that meet the objectives of both the *NHEP Management Plan* and the *New Hampshire NPS Management Plan*. Highlighted below are two grant programs and two projects that were administered by DES and funded through the NHEP.

Bellamy River, Dover

2000 Coastal Illicit Discharge Remediation Grant

DES received funds in May 2000 from NHEP to administer grants to coastal municipalities to eliminate illicit discharges that are connected to their storm drainage systems. As part of this agreement, DES issued a total of $18,000 in grants to Portsmouth, Dover, and Rochester. The grant projects eliminated a cross-connection between a sewer line and the storm drain system, rerouted catch basins from the sewer system to the storm drainage system, eliminated several illicit connections of residential buildings to the storm system, and identified new illicit connections by smoke testing. Work on these projects was conducted during the spring of 2001, and all were completed by June 30, 2001. More details are available in the final report for this grant on the DES website at www.des.state.nh.us/wmb/was/nhep2000.pdf.

In March 2001, NHEP and DES entered into another Memorandum of Agreement, which provided additional funding for municipal grants. A total of $30,000 was made available for coastal municipalities to eliminate illicit discharges.

Storm Drain System Mapping

Under the NHEP's 2001 Local Grants Program, Hampton and Somersworth were awarded grants to complete maps of their storm drainage systems. As with the Illicit Discharge Remediation Grants, DES staff is overseeing these projects. Additional mapping projects, funded under this program, will be initiated in 2002.

In addition, NHEP provided funding for a summer intern during 2001 to use a global positioning system (GPS) unit to identify the locations of storm drainage outfalls in

coastal communities. DES watershed assistance personnel directed the work of this summer intern. This information will assist the NPDES Phase II communities that must comply with the requirement that all stormdrain outfalls be mapped.

Innovative Stormwater Treatment Technologies BMP Manual

DES administered this NHEP project to develop a BMP manual that provided current information on commercially available stormwater treatment technologies. An ad-hoc committee was formed to create a manual outline and to review the periodic drafts written by DES staff.

The *Innovative Stormwater Treatment Technologies Best Management Practices Manual* provides municipal officials, urban planners and developers with information regarding innovative stormwater treatment technologies. In addition to providing detailed product information including function, installation, operation and maintenance, and relative cost, the manual also offers decision-making criteria to help determine the most efficient BMP system for specific site conditions. The technologies described in the manual are primarily for use in already-developed urban areas where traditional stormwater treatment cannot be used due to space constraints.

The manual is available through the DES Public Information Center at (603)271-2975 for $10 or free online at www.des.state.nh.us/desguid.htm .

Tracking Environmental Improvements

The *NHEP Monitoring Plan* lists various monitoring activities that are designed to answer management questions and track water quality improvements. Where appropriate, DES enhanced existing monitoring programs to accommodate NHEP monitoring needs. In 2001, DES increased the frequency of ambient river monitoring at six Great Bay tributary sites and created two new sampling locations on Little Harbor tributaries. DES staff collected monthly samples at each site for a variety of parameters. In addition, estuarine sites monitored for Shellfish Program purposes were enhanced to include monthly nutrient and dissolved oxygen monitoring.

Merrimack River Watershed Restoration

The summer of 2001 marked the beginning of field work for NPS investigations and restoration efforts in the Merrimack River watershed. Using Section 319 funds, a Merrimack River Restoration Supervisor was hired to identify and implement watershed restoration projects. Lacking an overarching water quality goal like shellfish bed cleanup in the Coast, a systematic approach was needed for restoration in the Merrimack.

Salmon Brook at the Confluence of the Merrimack River, Nashua

With assistance from a New Hampshire Office of Emergency Management grant, Rapid Stream Assessment Technique (RSAT) protocols developed by the Center for Watershed Protection were adapted and modified by DES for implementation in the Salmon Brook watershed in Nashua. The purpose of this RSAT pilot study is to see if relatively quick field surveys can be used to identify aquatic resources in need of restoration. In Salmon Brook, the RSAT data will be combined with build-out analyses data from the Nashua Regional Planning Commission (NRPC) and a hydrologic model by the Merrimack River Watershed Council to identify potential habitat and flood hazard mitigation sites. As of September 30, 2001, 25 RSAT surveys had been completed in the Salmon Brook watershed and the site scores generated through this analysis of the physical, chemical and biological integrity of stream reaches will be plotted with build-out analyses provided by the NRPC in order to prioritize those resources in need of restoration or protection efforts. Ultimately, DES hopes to generate several 319 restoration proposals from the Salmon Brook watershed based upon the work currently underway.

In addition to the RSAT surveys completed in the Salmon Brook watershed during 2001, several other RSAT surveys were completed on various stream and river reaches throughout the Merrimack River watershed. The intent is to generate a large population of RSAT scores from a wide variety of stream morphology types, as well as from stream and river habitats displaying various degrees of anthropogenic influence. This effort will provide other stakeholders within the watershed with a tool for diagnosing stream and river health, and a set of reference condition scores for comparability among sites.

DES is beginning the development of an illicit discharge connection survey program for the Merrimack. Communities designated as regulated municipal separate storm sewer systems (MS4s) under EPA's Phase II Storm Water regulation are being contacted to determine the status of their mapping capabilities and whether or not they have established an illicit connection survey program. It is the intention of DES to provide assistance to these urban communities during the next fiscal year in order to establish a discharge detection program similar to the efforts currently underway on the seacoast.

Watershed Assistance Grants

In fiscal year 2001, DES awarded $910,586 in Watershed Assistance Grants, including $571,575 in Watershed Restoration Grants for 21 projects addressing specific water quality impairments, and $339,011 in Nonpoint Source Local Initiative Grants for 19 projects addressing various NPS issues statewide. All of the grants were awarded through a competitive process and were evaluated on: severity of the water quality problem, clarity of project goals, local support, and likelihood of success. The appendix includes two tables that list the specific projects, the NPS issues of concern, funding amounts, and the fiscal year source of funds. Further project details can be found at www.des.state.nh.us/wmb/was/grants.htm

Projects Completed in Fiscal Year 2001

The following summaries are provided for projects that were completed in fiscal year 2001. The year in parenthesis is the year the grant was awarded by DES.

Scruton's Dairy Farm, Farmington – Phase II (1999)

Scruton's Dairy Farm is a 400+ head Holstein farm. The runoff from the farm was a documented source of NPS pollution, when inadequate storage facilities and a lagoon resulted in animal and other agricultural waste being transported off-site following rainfall events.

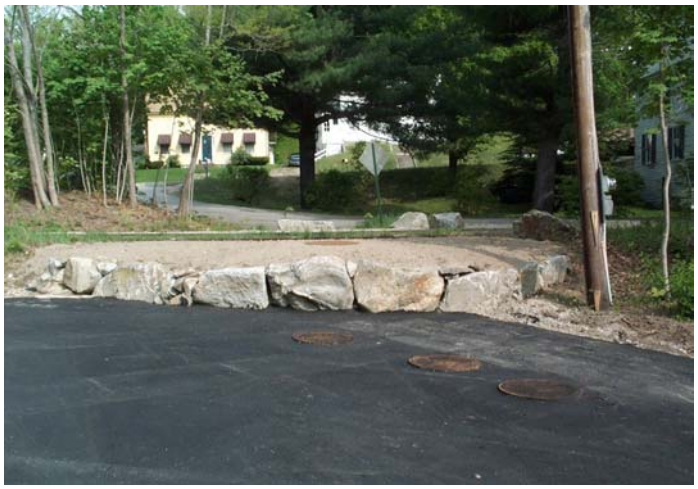
Manure Storage Facility at Scruton's Dairy Farm

The development and installation of BMPs for this facility, and another farm owned by Scruton's Dairy located in Dover, were divided into four phases. Phase I BMPs were completed in 1999 and 2000 and involved the construction of a manure storage facility for half of the animal waste produced on the farm, a settling basin and constructed wetland for the treatment of milk house waste, construction of a roof over an outdoor feedlot, and the separation and treatment of stormwater runoff. Phase II included the construction of a roof for the manure storage facility, asphalt paving of a high traffic area, collection and treatment of stormwater runoff, and the removal of the existing lagoon. Phases III and IV will involve the construction of additional manure storage facilities, roofing additional feedlots, and collection and treatment of stormwater runoff. The entire project is scheduled for completion in 2003.

Clark Brook Restoration – Keith Farm, Haverhill (1999)

A new manure and wastewater storage pond was installed at the farm to control nutrient runoff. The results were the availability of almost 100 percent of the manure waste to be used as crop fertilizer on site, and the incorporation of the milk house wastewater into the nutrient management system, eliminating 3,142 pounds/year of nitrogen and 1,303 pounds/year of phosphorous from Clark Brook. Additional load reductions were achieved by diverting milk house waste into the manure storage system.

Mast Landing Stormwater Treatment, Wolfeboro (1999)



Mast Landing, Wolfeboro - after installation of BMPs

The purpose of this project was to stop the discharge of stormwater, contaminated with sediment, from entering Crescent Lake through the installation of a Vortechs Stormwater Treatment System. The project was a coordinated effort between the Wolfeboro Department of Public Works, DES and N.H. Department of Transportation. Special concerns of the site were unstable soils in the area to be excavated, high groundwater level, the need to de-water the site while treating and retaining the effluent, and the need to prevent construction related runoff from discharging to the lake. Physical observations in the spring, following installation of the treatment system and paving and landscaping of the area, confirmed the success of the project as re-sedimentation was not observed at the outfall area of Crescent Lake.

Little Harbor/Back Channel Sanitary Survey (1999)

In 1999, DES conducted a comprehensive shoreline survey of the Little Harbor and Back Channel shoreline properties, including Sagamore Creek. All actual and potential pollution sources were documented in a shoreline survey report. This report was incorporated into the DES Shellfish Program *Sanitary Survey for Little Harbor and Back Channel*. The Sanitary Survey was followed by the opening of Little Harbor as "conditionally approved" for shellfish harvesting.

DES staff conducting survey along Back Channel shoreline

Robinson Pond, Nonpoint Implementation Project, Hudson (1999)

This project focused on four areas to address nonpoint source pollution within the watershed: water quality monitoring, land use management, education, and regulatory control. Specifically, a volunteer lake assessment program was established; a parcel-specific GIS database was developed; educational materials, including BMPs for landowners were distributed to residents; and changes were recommended to local zoning and land use regulations.

East Union Street Drain, Goffstown (1999)

This project involved the separation of stormwater runoff from the town's sanitary wastewater treatment system. In addition, the stormwater flow was diverted to a Vortechs stormwater treatment system before discharging into Glen Lake.

Winnipesaukee River Cleanup, Laconia (1999)

This project resulted in cleanup and planting of streambank vegetation along Durkee Brook, a tributary to the Winnipesaukee River.

Mill Pond Restoration, Nashua (2000)

The Nashua Regional Planning Commission developed a GIS land use database, organized a volunteer cleanup day and established a volunteer monitoring program to form the basis of a watershed management plan to address excess eutrophication of Mill Pond.

Water Purification System for Lake Sunapee Protective Association, Sunapee (2000)

The Lake Sunapee Protective Association installed a new water purification system to facilitate the accurate water quality sampling and analysis from 20 lake associations and conservation commissions in the Lake Sunapee area.

Monitoring the Cocheco River, Dover (2000)

The Cocheco River Watershed Coalition developed a volunteer river monitoring program for the Cocheco River to provide ongoing water quality data. The data will be used in the development of a watershed management plan.

Connecticut River Watershed: River Stewardship Support (2000)

The Connecticut River Joint Commissions assisted with the implementation of the Connecticut River Corridor Management Plan and produced a newsletter to communicate progress to local stakeholders and the public.

BMP Guidelines, New Hampshire Horse Council (2000)

The New Hampshire Horse Council developed, printed and distributed 500 copies of a publication titled "Guidelines and Best Management Practices for Horsekeeping."

Septic System Training and Outreach, Granite State Designers & Installers (2000)

The Granite State Designers & Installers conducted five seminars for septic system designers, installers and service contractors on new regulatory requirements. A septic system was designed and installed for the Homemakers of Strafford County, a non-profit home health care agency in Rochester for use as a hands-on training site to illustrate proper septic system installation. Finally, the grant funded the reprinting and distribution of 10,000 copies of a septic system guide and record-keeping folder for homeowners.

Other Nonpoint Source Activities within DES

In addition to the above financial assistance projects, the following describes some additional activities that occurred within the Watershed Assistance Section and other DES bureaus with 319 funding to address nonpoint source pollution issues.

Smart Growth

New England Fall Landscape

In response to the Governor's Executive Order 99-2, which calls upon state agencies to identify ways in which their regulations and programs can be improved with regard to their impact on sprawl, DES formed an internal Sprawl/Smart Growth Team. Smart Growth efforts work to prevent sprawl -- a term used to describe scattered, low-density development. Sprawl results in loss of open space, adversely impacts air and water quality, and reduces the quantity and quality of wildlife habitat. Smart Growth encourages proper land use management that will reduce the adverse environmental and social impacts of poorly managed growth.

In 2001 DES's Smart Growth efforts included the following activities:

- A Smart Growth workshop conducted for DES senior level staff, which included speakers from EPA, developers, and local regional planners.

- Work with the Office of State Planning and Department of Transportation to support community planning projects, including the development of a Smart Growth "Toolkit" to better manage growth and development.
- Participation in the Natural Resource Outreach Coalition to promote a better understanding of the relationship between land use and water quality.

State funding is available annually through the Regional Environmental Planning Program (REPP) to assist Regional Planning Agencies in developing the tools to conduct natural resource assessments, acquire conservation lands, promote land protection, open space planning and smart growth development. In 2002 the Team will begin work toward developing indicators on which to measure and track the effects of growth over time.

Agriculture Nutrient Management Grants Program

In 2001, the New Hampshire Legislature established an agricultural nutrient management grant program and appropriated $20,000 annually for small grants to assist farmers in reducing the adverse effects to water quality from agricultural nutrient runoff, including commercial fertilizers, animal manures, and composts. DES matched the state appropriation with $30,000 in Section 319 funds. Applicants are eligible to receive up to $2,500 each year for projects, such as fencing, concrete pads, protective structures, and vegetated buffers.

Landfill Closure Program

Since 1995, DES has been operating a landfill grant closure program, to assist municipalities with the closure costs of unlined landfills, a contributing source to ground and surface water pollution. In 2000, the grant program was expanded to include 18 municipal incinerators constructed prior to July 1, 1998. The purpose of these programs is to reimburse municipalities 20 percent of eligible capital costs associated with landfill and/or incinerator closures. These costs include hydrogeological and engineering investigation and design, and construction of closure elements in accordance with plans and specifications approved by DES. Since the program's inception, through July 2, 2001, 97 grants have been awarded, totaling over $22.6 million. In federal fiscal year 2001, nine grants, totaling $2,140,310, were awarded.

Education and Outreach

In order to facilitate and direct its public outreach efforts, the Watershed Assistance Section, formerly the NPS Program, developed the *Comprehensive Outreach Plan for the 319 Nonpoint Source Program* in 1998. The plan includes strategies for reaching the general public, visitors, reporters, public officials, local businesses, educators and students.

In 2001, outreach efforts included the distribution of a biennial *NPS Newsletter* and a monthly newspaper column, *GreenWorks*, which provides seasonal suggestions that the

general public can implement to improve water quality and the environment. The *NPS Newsletter's* mailing list increased from 150 in 1996 to 340 in 2001. Both publications are available on-line at www.des.state.nh.us/news-bulletins.htm

The theme for the Envirothon 2001 high school environmental competition was "Nonpoint Source Pollution--Home and Household." This provided an excellent opportunity for DES to partner with other organizations in providing hands-on NPS education to New Hampshire high school students.

DES will continue to foster its relationship with watershed organizations through specific outreach efforts aimed at this audience. For example, the DES annual Rivers Conference has been expanded to include watershed issues. In 2001 planning began for a one-day workshop on "Innovative Outreach Topics for Volunteer Organizations," which was held in the spring of 2002.

Looking Ahead

In future years, the Watershed Assistance Section will be placing increased emphasis on achieving measurable environmental results through its grant programs. Annual Requests for Proposals will require aspiring grant applicants to show how their projects will improve water quality. Restoration projects will require development and implementation of Watershed Management Plans. The plans will define the extent of water quality impairments, establish pollutant load reduction goals, prioritize pollutant sources in the watershed, include a schedule for addressing pollution sources, and measure progress toward achieving pollutant load reduction goals.

The Watershed Approach, currently under development by the Watershed Management Bureau, will describe the process for assessing and prioritizing watersheds for remediation, pollution prevention, and protection of outstanding natural resource waters. Improved access to GIS data layers and interpretation will be integral to the watershed assessment process. The Approach will also articulate the process for local watershed organizations to access both technical and financial assistance from DES. The 319 grants program and the 319 funded Watershed Assistance staff will continue to play key roles in local watershed management.

Stormwater management and land development continue to remain key environmental issues in New Hampshire. New federal stormwater regulations affecting municipalities take effect in March 2003. The Watershed Assistance Section will continue to provide assistance to municipalities designing local stormwater management programs. Congress has passed legislation removing restrictions on the use of 319 funds for local stormwater management programs designed to address the new federal stormwater regulations. While the grants program is not large enough to address major stormwater infrastructure projects, the program is likely to be tapped for required education and outreach programs, illicit discharge detection and elimination, and pollution prevention and good housekeeping programs.

Appendix

Section 319 Incremental Grants Awarded in FFY 2001

Section 319 Base Grants Awarded in FFY 2001

319 Dollars Awarded by NPS Area of Concern

Percentage of Section 319 Grant Dollars Distributed by Watershed

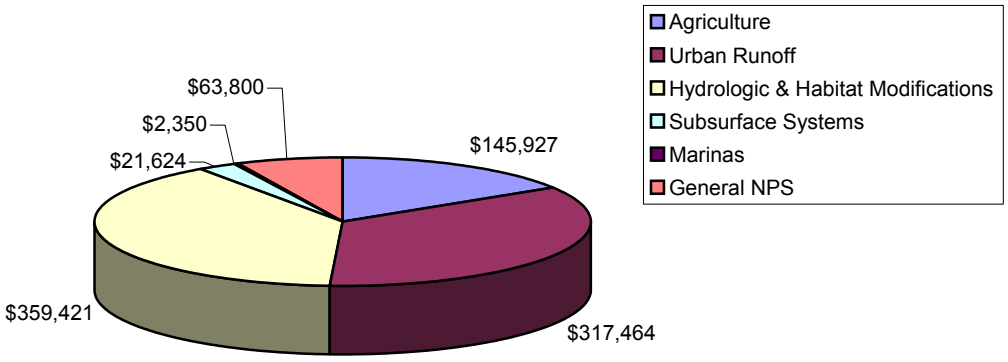
Section 319 Watershed Restoration Grants Awarded in FFY 2001

Grantee	Project Name	NPS Issue of Concern	Source of Funds (Fiscal Year)	Grant Award
Coastal Watershed				
Assn. Of US Delegates to the Gulf of Maine Council	NH Gulfwatch Blue Mussel Monitoring Program	Various	1999	$9,840
Jan-Mar Farm	Roof Runoff Control Project	Agriculture	1999	$19,862
US Dept. of Interior, USGS	Predictive Bacteria Model for Hampton Harbor - Phase II	Various	2000	$25,407
Town of Hampton	Highland Avenue Stormwater BMP Project	Urban runoff	1999	$34,775
Scrutons Dairy Farm	Scrutons Dairy Farm Water Quality Improvements - Phase III	Agriculture	2000	$51,000
Town of Durham	Feasibility Study for Reestablishing a Navigational Channel in the Oyster River	Hydrologic and habitat modification	2000	$29,200
Town of Stratham	Stratham Circle Mill Pond Restoration Project	Urban runoff	2000	$59,320
University of NH/Jackson Estuarine Lab	Best Management Practice Verification Project	Urban runoff	1999	$38,442
	Little Harbor/Back Channel Sanitary Survey	Urban runoff	1999	$15,011
		Subtotal:		**$282,857**
Merrimack River Watershed				
Belknap County Conservation District	NPS Pollution Reduction for Lake Winnipesaukee, Center Harbor Bay	Hydrologic and habitat modifications	2000	$2,690
	Union Cemetery	Hydrologic and habitat modifications	1999	$50,090
City of Manchester	Watershed Sensitive Parking Area and Educational Kiosk	Hydrologic and habitat modifications	2000	$13,080
City of Nashua	Mine Falls Park Bank Erosion	Hydrologic and habitat modifications	2000	$10,000
Lake Winnipesaukee Assn.	Stormwater Infiltration Trench, Meredith	Marinas	2000	$2,350
Merrimack County Conservation District	NPS Pollution Demonstration, Marstons Dairy Farm	Agriculture	2000	$22,840
Town of Goffstown Conservation Commission	The Waterfront at Glen Lake	Hydrologic and habitat modifications	2000	$64,625
Town of Wolfeboro	Mast Landing	Urban run-off	1999	$27,263
	Mill Street Stormwater Treatment	Urban run-off	2000	$20,000
Upper Merrimack River Local Advisory Committee	Riverbank Restoration Project	Hydrologic and habitat modifications	2000	$4,905
		Subtotal:		**$217,843**
Connecticut River Watershed				
Sullivan County Conservation District	MacGlauflin Farm Restoration Project	Agriculture	1999	$52,225
		Subtotal:		**$52,225**
Saco River Watershed				
Carroll County Conservation District	Chocorua Lake Restoration-Phase II	Urban run-off	2000	$12,000
	Chocorua Lake Restoration-Phase III	Urban run-off	2000	$6,650
		Subtotal:		**$18,650**
			Total Awards:	**$571,575**

Section 319 NPS Local Initiative Grants Awarded in FFY 2001

Grantee	Project Name	NPS Issue of Concern	Grant Award
City of Rochester DPW	EPA Phase II NPDES Stormwater Public Education Video	Urban Runoff	$21,000
Granite State Designers and Installers Assn	Septic Installers Manual	Subsurface Disposal System	$14,379
Great Bay Coast Watch of UNH Coop./Sea Grant Program	Stormwater Investigation for Potential Pollution Sources	Urban Runoff	$6,033
Henniker Conservation Commission	Quantification of Tributary Phosphorus Loading to French Pond	Subsurface Disposal System	$7,245
Merrimack River Watershed Council	Powwow River Watershed Buildout Project	Hydrologic & Habitat Modification	$13,000
Nashua Regional Planning Commission	Boire Field Brook Subwatershed Project	Urban Runoff	$13,170
NHDES - Biology Section	Rust Pond Lake & Watershed Diagnostic Study	Restoration	$7,164
NHDES - Biology Section	Vortechs Stormwater Treatment Study	Urban Runoff	$15,000
North Country Resource Conservation & Development Area Inc.	State Watershed Corps	General NPS	$7,724
Pennichuck Water Works	Innovative Street Specification Manual	Urban Runoff	$40,000
Piscataquog Watershed Assn	Piscataquog River Riparian Restoration	Hydrologic & Habitat Modification	$11,547
Rockingham Planning Commission	Public Education and Outreach for Exeter River Local Advisory Comm.	General NPS	$2,820
The Baker River Watershed Assn	Watershed Mgt. Plan for the Baker river to Protect Water Quality	Hydrologic & Habitat Modification	$12,000
The Nature Conservancy, NH Ch.	Develop Schoodac Brook Conservation Plan	General NPS	$7,331
Town of Newbury	Gillingham Drive Stormwater Mgt	Urban Runoff	$3,600
Town of Newbury	Chalk Pond Sediment and Erosion Control Plan and Outreach Program	Hydrologic & Habitat Modification	$33,035
Town of Plaistow	Identify and Maintain Drainage Facilities	Urban Runoff	$5,200
UNH Cooperation Ext. in Grafton County	Riparian Buffer Research, Demonstration and Education Project	Hydrologic & Habitat Modification	$115,249
Upper Merrimack River Local Advisory Comm.	Data Presentation, Outreach & Education	General NPS	$3,514
		Total Awards:	**$339,011**

Distribution of 2001 Section 319 Grant Dollars by NPS Category



Distribution of 2001 Section 319 Grant Dollars by Watershed